

4c

Notice of Allowability	Application No.	Applicant(s)	
	10/600,736	GIERE ET AL.	
	Examiner	Art Unit	
	Raquel Y. Gordon	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 3/1/2005.
2. ☒ The allowed claim(s) is/are 1-23.
3. ☒ The drawings filed on 20 June 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

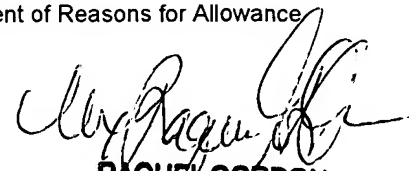
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413), Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|---|--|


RAQUEL GORDON
PRIMARY EXAMINER

Reasons for Allowance

The following is an examiner's statement of reasons for allowance. The primary reasons for allowance is the following claimed combinations is not taught by the prior art of record as emphasized with bolding and underlining below:

Claim 1 recites: 1. A fluid ejection device comprising: a first substrate having a first surface, the surface defining a fluid supply conduit extending through the substrate from the first surface; a stack of thin film layers having a first surface and a second surface, the first surface of the stack of thin film layers being affixed to the first surface of the substrate, the stack of thin film layers including at least one fluid energizing element; a second substrate having a first surface affixed to the second surface of the stack of thin film layers, the second substrate primarily configured to filter fluid and not primarily to form fluid channels and firing chambers **and wherein the second substrate has at least one fluid filter opening formed over the fluid-supply conduit**; and, a third substrate positioned over the second substrate and defining, at least in part, multiple fluid channels and multiple firing chambers.

The primary reasons for allowance of claim 1 is, as amended, does not teach and wherein the second substrate has at least one fluid filter opening formed over the fluid-supply conduit. For example, Kubota et al. teach a fluid supply conduit (53) similarly to that claimed, yet it is noted there is no fluid filter formed over the fluid supply conduit, as newly claimed.

Claim 8 recites: A fluid ejection device comprising" a substrate defining a fluid supply conduit; a first layer assembly positioned over the substrate, the first layer assembly being primarily configured to provide electrical components including one or more resistors; and a second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, wherein the second layer assembly comprises at least one layer **which extends across the fluid supply conduit and is primarily configured to filter fluid and not primarily to form a firing chamber.**

The primary reasons for allowance of claim 8 is, Kubota et al. teach a similarly fluid supply conduit (53) as claimed, but, fails to teach at least one layer which extends across the fluid supply conduit and is primarily configured to filter fluid and not primarily to form a firing chamber, as newly claimed.

Claim recites: 13. A fluid ejection device comprising: a substrate having a first surface and a second surface, the substrate defining a fluid supply conduit between the first surface and the second surface; and **a generally elastic filter layer formed over the first surface, wherein the filter layer does not form sidewalls defining a fluid channel of the fluid ejection device.**

The Examiner acknowledges a voice mail message from Applicant's representative left on or about on February 22, 2005. However, the Examiner was unexpectedly away on leave from February 23, 2005 through March 2, 2004 and promptly responded to Applicant's representative upon her return. Examiner confirmed the status of claim 13 was allowable as indicated in the "Reasons for Indication of

Allowability" provided on Office Action mailed 12/16/2004. The primary reasons for allowance of claim 13 is the claimed combination was not taught by the prior art. The Examiner maintains her previous reasons for allowance.

Claim 17 recites: 17. A method comprising: forming at least one thin film layer over a first surface of a substrate; forming at least one generally planar elastic filter layer over the at least one thin film layer **the generally planar elastic filter layer having at least one fluid filter opening formed therein**; and, forming at least one further layer over the generally elastic layer to form sidewalls which define at least in part multiple firing chambers.

The primary reasons for allowance is claim 17, as amended, overcomes the teachings of Kubota et al. since Kubota et al. do not teach the claimed combination of: is the generally planar elastic filter layer having at least one fluid filter opening formed therein, as newly claimed.

Claim 19 recites: 19. A method comprising: forming a first layer assembly over a first surface of a substrate wherein the first layer assembly forms one or more electrical traces; and, forming a second layer assembly over the first layer assembly, wherein the first layer assembly comprises a first layer configured to filter contaminants from a fluid and not to from electrical traces, **the first layer having at least one fluid filter opening formed therein over a fluid supply conduit of the substrate**, and at least one additional layer formed over the first layer which forms at least a portion of sidewalls which define multiple firing channels.

The primary reasons for allowance is claim 19, as amended, overcomes the teachings of Kubota et al., in view of Chen et al. since neither reference taken singly or in combination teach the claimed combination of: the first layer having at least one fluid filter opening formed therein over a fluid supply conduit of the substrate, as newly claimed.

21. A fluid ejection device comprising: a substrate defining a fluid supply conduit; a first layer assembly positioned over the substrate, the first layer assembly being primarily configured to provide electrical components including one or more resistors; and, a second layer assembly positioned over the first layer assembly, the second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, **wherein the second layer assembly comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber such that the at least one layer has a thickness of no more than about 20 percent of a thickness of a different layer which forms the firing chambers.**

The primary reasons for allowance of newly proposed claim 21 is the prior art does not teach wherein the second layer assembly comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber such that the at least one layer has a thickness of no more than about 20 percent of a thickness of a different layer which forms the firing chambers, as claimed.

22. A fluid ejection device comprising: a substrate defining a fluid supply conduit; a first layer assembly comprising multiple thin-film layers and positioned over the substrate, the first layer assembly being primarily configured to provide electrical

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components including one or more resistors; and, a second layer assembly positioned over the first layer assembly, **the second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, wherein the second layer assembly comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber.**

The primary reasons for allowance of newly proposed claim 22 is the prior art does not teach the second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, wherein the second layer assembly comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber, as claimed.

23. A fluid ejection device comprising: a substrate defining a fluid supply conduit; a first layer assembly positioned over the substrate, the first layer assembly being primarily configured to provide electrical components including one or more resistors; and, a second layer assembly comprising at least three layers and positioned over the first layer assembly, **the second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, wherein the second layer assembly comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber.**

The primary reasons for allowance of newly proposed claim 23 is the prior art does not teach the second layer assembly being primarily configured to form a filter and define fluid-feed passageways and firing chambers, wherein the second layer assembly

comprises at least one layer primarily configured to filter fluid and not primarily to form a firing chamber, as claimed.

And exhaustive updated search was conducted which resulted in the finding of no prior art to disprove novelty and nonobviousness of the claims.

The independent claims are thus allowed. The dependent claims are allowed since they depend from allowed base claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Raquel Y. Gordon, whose telephone number is (571) 272-2145. The Examiner can normally be reached on M Tu Th and F 8:30-6:00.

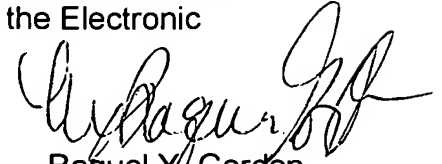
If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. A fax number is available upon request.

Any inquiry of a general nature or relating to the status of this application or proceeding may be directed to the Examiner or Supervisor.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Raquel Y. Gordon
Primary Examiner
Art Unit 2853
March 17, 2005

**RAQUEL GORDON
PRIMARY EXAMINER**